



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/512,144

10/22/2004

Morihisa Momona

NEC03P013-S1b

2330

21254

7590

10/06/2008

MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC  
8321 OLD COURTHOUSE ROAD  
SUITE 200  
VIENNA, VA 22182-3817

EXAMINER

LAM, JOSEPH M

ART UNIT

PAPER NUMBER

2416

MAIL DATE

DELIVERY MODE

10/06/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/512,144	<b>Applicant(s)</b> MOMONA, MORIHISA	
	<b>Examiner</b> JOSEPH LAM	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Response to Amendment***

\*\*Correction notice: In the last office action, The inventor of prior art reference U.S. Pat. 2002/0176378A was cited as Isomaki. However, the correct inventor is Halmilton.

1. Applicants' arguments file on October 22, 2004 have been fully considered but they are not persuasive.

*Applicant argues that:*

Larson does not disclose "a plurality of external networks; a plurality of mobile terminals; a plurality of gateways for connecting said external network and said mobile communication network, and a plurality of radio access points for connecting said mobile terminals to said mobile communication network, wherein, when packets are transmitted and received between said mobile terminals, the packets are communicated by way of virtual networks that are provided to correspond to each of said external networks on said mobile communication network,"

*Examiner disagrees because:*

As recited in the reject of claim 1, Larson discloses the following:

- a plurality of external networks (see par. 0014, fig.1, element plurality of Radio Access Network (200, 300, 400))
- a plurality of mobile terminals (see par. 0014, fig. 1, element plurality of mobile terminal 30)

Art Unit: 2616

- a plurality of gateways for connecting said external network and said mobile communication network (see par. 0023, fig. 2, element Gateway (40A, 40B, 40C): plurality of associated IP gateways );
- a plurality of radio access points for connecting said mobile terminals to said mobile communication network (see par. 0003: plurality of radio access points, and see par. 0014, fig. 1, element Radio Access Network (200, 300, 400): plurality of Radio Access Network);
- wherein, when packets are transmitted and received between said mobile terminals, the packets are communicated by way of virtual networks that are provided to correspond to each of said external networks on said mobile communication network (see par. 0023, fig. 2: a "virtual data trunk" is dynamically established between each CRI 510 and/or MSC 110, 120, 130, through the IP network 60 as needed. IP data packets representing call communications--voice or data--are routed through the IP network 60 based upon which data trunk 118, 128, 138, 518 carried the communications from the associated MSC 110, 120, 130 or CRI 510.)

Therefore, this limitation of claim 1 is anticipated by Larson.

*Applicant argues that*

The Examiner merely refers to means for refusing of Hamilton and fails to address the other missing features of Larson et al., such as means for control and management, and packets for control and management that allegedly are disclosed in Hamilton et al.

Examiner disagrees because

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation is "improving building packet filtering and network based firewall to protect mobile communication network (see Hamilton: par. 0095)".

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1- 4, 6, 7, 8 are rejected under 35 U.S.C 102(e) as being anticipated by Larson et al. (US 2003/0026229).

**Regarding claim 1**, Larson et al. teaches a mobile communication network system that comprises: a mobile communication network (see figure 1, element 212, 214, 312, and 412), a plurality of external networks (see figure 1, element “PSTN 20”, a plurality of mobile terminals (see figure 1, element 30), a plurality of gateways for connecting said external networks and said mobile communication network (figure 2, element 40A, 40B, 40C, 40D), and a plurality of radio access points for connecting said mobile terminals to said mobile communication network (see figure 1, element 200, 300, and 400), wherein, when packets are transmitted and received between said mobile terminals, the packets are communicated by way of virtual networks that are provided to correspond to each of said external networks on said mobile communication network (see figure 1 element 100).

Art Unit: 2616

**Regarding claim 2**, Larson et al. further teaches a mobile communication network system that comprises: a mobile communication network (see figure 1, element 212, 214, 312, and 412), a plurality of external networks (see figure 1, element "PSTN 20", a plurality of mobile terminals (see figure 1, element 30), a plurality of mobile terminals (see figure 1, element 30), a plurality of gateways for connecting said external networks and said mobile communication network, (figure 2, element 40A, 40B, 40C, 40D) and a plurality of radio access points for connecting said mobile terminals to said mobile communication network (see figure 1, element 200, 300, and 400); wherein: said mobile communication network is provided with means for offering virtual networks that correspond to each said external network (see figure 1, element 100 and element "PSTN 20"); said gateways are provided with means for connecting said external networks to corresponding said virtual networks (see figure 2, element 40A, and element 110) and (see figure 1, element 110 and element "PSTN 20"); and said mobile terminals are provided with means for setting sessions with said radio access points for any of said external networks (see figure 1, element 200, 300, and 400, element 30, and element PSTN 20); said radio access points are provided with: means for transferring packets that have been received from any of said sessions to a virtual network that has been prepared for an external network that corresponds to that session (see figure 1, element 210, and element 120); and means for transferring packets, which have been received from said virtual network that corresponds to any external network, to a session that has been set for said external network by said mobile terminal that is the destination of these packets (see page 2, paragraph [0016],

and figure 1); and private leased line connections are provided between said mobile terminals and said external networks, and when transmission or reception of packets is realized between said mobile terminals, the packets are communicated by way of virtual networks that are provided to correspond to each of said external networks on said mobile communication network ( see page 3, paragraph [0019], and figure1).

**Regarding claim 3**, Larson et al. further teaches a mobile communication network system , wherein each of said radio access points is provided with: means for, when a said mobile terminal is to be handed over from a current radio access point to which it is currently connected to a new radio access point, transferring information of all sessions that said mobile terminal has set to the new radio access point (see figure 1, element 120 and 300(as a new radio access point)); and means for acquiring said setting information of sessions that is transmitted in from said current radio access point ( see page 4, paragraph [0021]).

**Regarding claim 4**, Larson et al. further teaches a mobile communication network system, wherein: said mobile communication network further comprises a mobility management node that is made up of a plurality of virtual mobility management nodes that are each provided with: means that is prepared for each of said external networks for transmitting and receiving packets only with a said virtual network that has been prepared for use by a corresponding external network (see page 2, paragraph [0015]); means for holding positional information that has been reported from said mobile terminals ( see page 2, paragraph [0016]); means for, when packets that are



Art Unit: 2616

addressed to said mobile terminals are received, transferring these packets to positions that have been reported from said mobile terminals ( see page 4, paragraph [0025]); and wherein each of said mobile terminals is further provided with: means for reporting positional information to said virtual mobility management node that corresponds to said external network to which the mobile terminal is to be connected (see page 4, paragraph [0015] and [0016]).

**Regarding claim 6**, Larson et al. further teaches mobile communication method in a mobile communication system comprising: a mobile communication network (see figure 1, element 212, 214, 312, and 412), a plurality of external networks (see figure 1, element "PSTN 20", a plurality of mobile terminals (see figure 1, element 30), a plurality of gateways for connecting said external networks and said mobile communication network (figure 2, element 40A, 40B, 40C, 40D), and a plurality of radio access points for connecting said mobile terminals to said mobile communication network (see figure 1, element 200, 300, and 400); said mobile communication method comprising steps wherein: a said mobile terminal sets a session for any of said external networks with said radio access point (page 1, paragraph [0003]); a said radio access point transfers packets that have been received from any said session to a virtual network that has been prepared for each of said external networks that corresponds to the session (see page 2, paragraph [0015]); and said radio access point transfers packets that have been received from said virtual network that corresponds to any external network to the

Art Unit: 2616

session that has been set for use of said external network by said mobile terminal that is the destination of the packets (see page 2, paragraph [0016]).

**Regarding claim 7**, Larson et al. further teaches a mobile communication method comprising steps wherein: when a said mobile terminal is to be handed over from a current radio access point to which it is currently connected to a new radio access point, said current radio access point transfers all of said session information that said mobile terminal has set to said new radio access point (see page 1, paragraph [0003]); and said new radio access point acquires from said current radio access point all of said session setting information that said mobile terminal has set (page1, paragraph [0004]).

**Regarding claim 8**, Larson et al. further teaches a mobile communication method comprising steps wherein: each of a plurality of virtual mobility management nodes that are prepared for each of said external networks and that together constitute a mobility management node that is provided within said mobile communication network transmits and receives packets only with a said virtual network that has been prepared for the use of a corresponding said external network (see page 2, paragraph [0015] ); a said mobile terminal reports positional information to said virtual mobility management node that corresponds to said external network to which said mobile terminal is connected (see page 2, paragraph [0016]); each of said virtual mobility management nodes holds positional information that has been reported from said

Art Unit: 2616

mobile terminal, and upon receiving packets that are addressed to said mobile terminal, transfers these packets to the position that is reported from said mobile terminal (see page 2, paragraph [0017]).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claims 5, 9, 10, 11, 12, 13** are rejected under 35 U.S.C. § 103 (a) as being unpatentable as obvious over Larson et al. (U.S. 2003/0026229 A1) in view of Hamilton et al. (U.S. 2002/0176378 A1).

Larson discloses a mobile communication network system, comprising the following:

- a control/management virtual network (see figure 1, element 100);

Art Unit: 2616

- means for transmitting and receiving, by way of said control/management virtual network, packets for control and management that are exchanged between nodes that are arranged within said mobile communication network and that include said radio access points and said mobility management nodes (see page 2, paragraph [0017]);
- packets for control and management that are transmitted and received between said radio access points, said mobility management nodes, and said gateways that are arranged within said mobile communication network are transmitted and received by way of a control/management virtual network that is provided within said mobile communication network ( see page 2, paragraph [0016]);
- a control/management virtual network (see page 2, paragraph [0012], and figure 2);
- means for transmitting and receiving, by way of said control/management virtual network, packets for control and management that are exchanged between nodes that are arranged within said mobile communication network and that include said radio access points and said mobility management nodes (see page 2, paragraph [0017]);
- a control/management virtual network (see page 2, paragraph [0012], figure 2);
- means for transmitting and receiving, by way of said control/management virtual network, packets for control and management that are exchanged between nodes that are arranged within said mobile communication network and that include said radio access points and said mobility management nodes ( see page 2, paragraph [0016]);
- packets for control and management that are transmitted and received between said radio access points, said mobility management nodes, and said gateways that are arranged within said mobile communication network are transmitted and received by

Art Unit: 2616

way of a control/management virtual network that is provided within said mobile communication network ( see page 2, paragraph [0015], [0016]), and [0017]);

Larson et al. fails to disclose, comprising the following:

- Means for refusing packets for control and management that have been received from sources other than said control/management virtual network.
- a packets for control and management that have been received from a source other than said control/management virtual network are refused.
- Means for refusing packets for control and management that have been received from sources other than said control/management virtual network.
- Means for refusing packets for control and management that have been received from sources other than said control/management virtual network.
- Means for refusing packets for control and management that have been received from sources other than said control/management virtual network.
- Packets for control and management that have been received from a source other than said control/management virtual network are refused.

However, Hamilton discloses in the same field of endeavor, the following:

- means for refusing packets for control and management that have been received from sources other than said control/management virtual network ( see page 7, paragraph [0095]);
- means for control and management that have been received from a source other than said control/management virtual network are refused (see page 7, paragraph [0094], and [0095]);

Art Unit: 2616

- means for refusing packets for control and management that have been received from sources other than said control/management virtual network (see page 7, paragraph [0094], and [0095]);
- means for refusing packets for control and management that have been received from sources other than said control/management virtual network (see page 7, paragraph [0094], and [0095]);
- packets for control and management that have been received from a source other than said control/management virtual network are refused (see page 7, paragraph [0094], [0095] and [0114]).

Hamilton et al. discloses the above differences for the purpose of improving building packet- filtering and network based firewall to protect the mobile communication network (see page 7, paragraph [0094], and [0095]).

Therefore, It would have been obvious to one in the art at the time that the invention was made to combine the communication network system as described by Larson with the mean for refusing as taught by Hamilton, in order to enhance capability between external networks and mobile terminals, as well as packet-filtering and network based firewall.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Lam whose telephone number is 571-270-1959. The examiner can normally be reached on M-Th 7:30 AM - 5:00 PM, F 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOSEPH LAM/  
Examiner, Art Unit 2616

9/28/2008

/Huy D. Vu/

Supervisory Patent Examiner, Art Unit 2616